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# Testimony of


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## Before the
## House Budget Committee

**"Foreign holdings of US debt: Is Our Economy Vulnerable?"**

I want to thank the members of the committee for inviting me to testify. It is a particular honor to participate in such a distinguished panel.

At the end of 2006, foreigners held an estimated $10 trillion in US debt – roughly $5 trillion in long-term debt securities and $5 in short-term securities and cross-border bank claims. Roughly $800 billion of the $5 trillion in long-term claims were held by China's government (counting some securities held by China's state commercial banks) more than the perhaps $700 billion in long-term US debt securities held by Japan's government.[1] By the end of 2007, total foreign holdings of US debt will rise to around $12 trillion, total foreign holdings of long-term debt securities will be close to $6 trillion, and long-term debt held by China's government likely will rise to around $1.1 trillion.

I mention China specifically because the strong recent rise in China's current account surplus, along with ongoing private capital inflows into China, has made China's government the largest single source of (net) financing for the US current account deficit. China's foreign exchange reserves – counting the reserves likely to be shifted to a new investment agency – are set to rise by between $450 and $500 billion in 2007, with between $300 and $350 billion of that increase flowing into US assets (Chart 1). China's foreign assets are growing so rapidly that it could buy a company the size of Unocal every month – and still have enough money left over to buy all the Treasury bonds that the US needs to sell to finance its budget deficit. Right now, China's government is the largest single buyer of US Treasury and US "Agency" bonds, the largest potential source of demand for many other dollar-denominated financial assets and – given that it must sell a fraction of the dollars it accumulates intervening in the foreign exchange market to keep the dollar share of its reserves from rising – also the largest actor in the foreign exchange market.

Financial integration implies rising foreign holdings of US assets and rising US holdings of foreign assets. But so long as the US is running a large external deficit, foreign holdings of US assets will need to rise faster than US holdings of foreign assets. The large US current account deficit – roughly $800b in 2006 – has been financed primarily by placing debt, and specifically long-term debt securities, with foreign investors. US direct investment abroad, along with US purchases of foreign equities, recently have exceeded foreign direct investment in the US and foreign purchases of US equities.

My testimony will emphasize three points:

- To date, the United States' large trade deficit has not resulted to a significant deterioration in the United States' net international investment position (US liabilities to the world net of US holdings of foreign assets) or to a deficit in the income balance (the gap between the interest and dividends the United States receives on its investments abroad and the interest and dividends the United States

[1] The US has not formally released data on the total stock of foreign claims on the US for the end of 2006. I have drawn on the data from the 2005 net international investment position, the 2006 capital account data from the Bureau of Economic Analysis, the 2006 Treasury survey of foreign portfolio investment in the US and China's reserves data to compile these estimates. The actual data should be released at the end of June.

pays to foreigners). Going forward, that is likely to change. The United States should not expect foreigners – including foreign governments – to finance the United States on as generous terms as the US has enjoyed over the past few years.

- Foreign central banks and government-owned investment funds have played an important role financing the US current account deficit over the past several years. As the US economy has slowed relative to the rest of the world in late 2006, reducing the attractiveness of US financial assets to private investors abroad, the share of the US external deficit financed by foreign central banks increased substantially.
- Official financial flows have generally been stabilizing rather than destabilizing; foreign central banks have bought dollar-denominated assets, financing the US deficit, when private investors haven't wanted to. Bringing the US deficit down in a gradual, orderly way will require ongoing central bank financing. However, the United States ongoing dependence on inflows from foreign central banks still poses substantial risks. The US should worry both about the possibility that foreign central banks will provide the US with too little financing, forcing rapid and disruptive adjustment, and the possibility that foreign central banks will provide the US with so much financing that a necessary adjustment is deferred.

One theme will run throughout my testimony: the United States has a strong interest in a process of gradual adjustment that reduces the United States' need to borrow from the rest of the world to finance domestic investment. The absence of any adjustment is undesirable: it implies that foreigners will continue to finance a very large share of all US domestic investment and a large buildup of the United States' foreign debt. Too rapid adjustment is also undesirable. A sharp fall in foreign financing of the US would lead the dollar to fall, stimulating US exports, but it would also push up US interest rates, leading other parts of the economy to slow. Gradual adjustment – say 1% of GDP a year -- would facilitate the shift of resource from sectors of the economy that have benefited from the low interest rates associated with large (net) inflow of foreign savings to the US toward sectors that would benefit from a weaker dollar. Gradual adjustment also provides foreign governments time to take steps to stimulate domestic demand and wean their economies off export-led growth.

**THE ONGOING INCREASE IN FOREIGN HOLDINGS OF US DEBT IS UNLIKELY TO CONTINUE ON SUCH GENEROUS TERMS**

The United States' current account deficit topped $800b -- roughly 6% of US GDP – in 2006. Its 2007 deficit is likely to be comparable in size. As the US economy emerges from its recent growth slump, the US current account deficit is likely to resume its increase in the absence of a fall in oil prices or large additional falls in the dollar.

Right now, the current account surpluses that offset the US deficit are overwhelmingly found in East Asia and the world's oil-exporting economies. Should oil prices stabilize, rising domestic spending and investment in the oil-exporting economies should reduce their current account surplus. However, East Asia's surplus looks set to continue its rise. China's current account surplus was $250b (a bit under 10% of China's GDP) in 2006.

Its 2007 surplus is expected to rise to $350-400b – an unprecedented sum. Japan's current account surplus is also rising, in part because of rising interest income from Japan's large holdings of foreign debt. So long as East Asia's surplus continues to rise, global adjustment will be difficult. Surpluses in one region have to be offset by deficits elsewhere.

A current account deficit indicates that a country saves less than it invests; a surplus indicates a surplus of savings over investment. The US consequently must finance its savings shortfall either by placing debt with investors in the rest of the world, attracting large (net) inflows into its equity market or attracting large net inflows of foreign direct investment. New foreign equity investments in the US – whether direct investment or the purchase of foreign stocks– have been more than offset by new US equity investments abroad. Inflows into the US banking system have generally been offset by outflows from the US banking system. By contrast, foreign purchases of US debt securities have exceeded US purchases of foreign debt, providing the large net inflows needed to cover the United States current account deficit.

As a result, the US net debt position – the gap between what the US has borrowed from the world and what the US has lent to the world -- has deteriorated dramatically over the past six years. Since the end of 2000, total foreign holdings of US debt have increased from $4.3 trillion to close to $10.0 trillion while US lending to the rest of the world has increased from $2.9 trillion to an estimated $4.6 trillion. Net US external debt consequently has increased from $1.5 trillion at the end of 2000 to about $5.4 trillion at the end of 2006 – the $4 trillion increase is in line with the cumulative $3.6 trillion US current account deficit over this time frame.

However, the overall US net international investment position – the difference between all US assets abroad and all US liabilities to the world -- hasn't deteriorated at the same pace. The dollar value of US equity investment abroad has increased far more rapidly that the dollar value of foreign equity investment in the US. The dollar value of US equity investment abroad increased from $4.5 trillion in 2000 to $9.1 trillion in 2006, while the dollar value of foreign equity investment in the US increased from $4.3 trillion to an estimated $5.9 trillion. The United States' net equity position consequently shifted from rough balance to a $3 trillion surplus (Chart 2).

The improvement in the US net equity position largely reflects capital gains on existing US equity investment, not large (net) US purchase of foreign equities.[2] Since the end of 2000:

- Foreign equity markets generally outperformed the US equity market in local currency terms.
- The dollar's slide against European currencies and the Canadian dollar has substantially increased dollar value of existing investment in Europe and Canada.

[2] Since the end of 2000, cumulative US direct investment abroad has exceeded foreign direct investment in the US by about $200b. Portfolio equity inflows and outflows are roughly equal.

Indeed, the capital gains on US equity investment abroad since 2002 have been large enough to entirely offset the increase in debt associated with the current account deficit, so the US net international investment position hasn't deteriorated.

The income balance – the gap between the interest and dividends that the US pays to the rest of the world and the interest and dividends that the US receives from the rest of the world -- also has not deteriorated as rapidly as many had feared. The revised data from Bureau of Economic Analysis (BEA) indicates that the US actually received more interest and dividend income from the rest of the world than it paid out in 2006 (Chart 3).

Here too the overall balance can be disaggregated into the interest payments on debt and the dividends payments on equity. As one would expect, payments on US external debt have increased substantially. Interest payments on US external debt likely totaled $430b in 2006, up from a low of $170b in 2003 and $250b in 2000 (Chart 4).[3] This trend continued in the first quarter of 2007: the q1 data suggests the 2007 US interest bill will be substantially higher than $500b. However, interest income on US lending abroad – which seems to be primarily short-term –also has increased. Right now, the implied interest rate on US lending is close to 6%, while the implied interest rate on US borrowing is close to 4.5% (Chart 5). In my judgment, this large gap is unlikely to persist. As the average interest rate on the United States (large) stock of external debt rises, the US income balance should begin to deteriorate.

The US income balance has also been helped by a large ongoing gap between the reported dividend income of US direct investment abroad and foreign direct investment in the US, a gap that stems more from low reported returns on foreign direct investment in the US than high reported returns on US direct investment abroad (Chart 6).

The ability of the United States to run large deficits without much deterioration in its net international investment position or a significant deterioration in its income deficit reflects the willingness of the United States' external creditors to add to their holdings of US debt when -- at least in retrospect – they would have received far larger financial returns had they invested in foreign equities. Foreigners would have fared better if they had forced the US to sell its existing external assets rather just buying US debt.

## THE ROLE OF FOREIGN CENTRAL BANKS

No one doubts that foreign central banks – including the People's Bank of China – have been very large buyers of US debt securities. The BEA data show that official purchases of US assets rose from under $100b a year in 2000 and 2001 to nearly $400b in 2004. Official inflows then fell to $275b in 2005 – a year when rising US short-term

[3] These estimates are derived from the balance of payments data released by the Bureau of Economic Analysis. The exact number for 2006 though depends on dividend payments on foreign portfolio investment in the US – a data point that the BEA has yet to release. I assumed that 2006 dividend payments matched 2005 dividend payments. Since these payments are small, this is not a large source of error.

rates and the Homeland Investment Act helped support the dollar – before rising to $440b in 2006 and an annualized $600b in the first quarter of 2006.

Large as these inflows are – the $440b in central bank purchases of US assets in 2006 far exceeded the $155b in marketable Treasuries issued to finance the US fiscal deficit in 2006, and the large cumulative increase in central bank holdings of Treasuries since 2000 has limited the increase in marketable treasuries held privately (Chart 7) – the BEA data likely understate the role central banks and sovereign wealth funds have played in financing the US external deficit. The BEA data do not capture the dollars that central banks have on deposit in banks outside the US. Those dollars are then lent out, and indirectly help to increase private demand for dollar-denominated debt, including US dollar denominated debt.[4] Most importantly, recent BEA data do not capture large central bank purchases of US assets made through private custodians in London and other financial centers. The BEA's data is revised annually to reflect the information provided by United States Treasury's annual survey of foreign portfolio investment in the US, which tends to do a better, though still imperfect, [5] job of capturing the ultimate ownership of US debt securities. However, the most recent data points tend to substantially understate central bank purchases of US assets.

A number of technical difficulties complicate efforts to determine the exact impact of central bank demand for US debt on US yields. Custodial bias makes real-time estimates of the size of official inflows hard. The shift in central bank demand from Treasuries to Agencies after 2005 further complicates analysis. But many studies find a substantial impact – 100 to 150bp at the peak of central bank demand for US assets in 2004 (Warnock and Warnock, 2005, Moec and Frey, 2005). When the analysis of the recently revised data – which shows far higher central bank purchases in 2006 than the BEA had previously indicated – is completed, I would expect to find that central banks exerted a similar impact in 2006.

Central bank demand for US debt, generally speaking, has allowed the US to finance a larger deficit at lower cost than otherwise would have been the case. Assessing the long-term impact of these policies on the overall US economy is difficult, since strong demand for debt securities and low interest rates help some sectors even as other sectors are hurt by other countries efforts to keep their currencies under-valued.

Central bank demand for US debt has helped lower the interest burden of the US government. It has encouraged heavy household borrowing, both to support consumption growth in excess of income growth and – between 2003 and 2006 -- a surge in residential investment. More recently, low interest rates have supported strong demand for corporate debt, whether from firms looking to buy back their equity (and thus

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[4] Foreign central banks purchases of euro and pound denominated securities also help to generate indirect demand for US debt, as such purchases push down European yields and make US assets relatively more attractive to private investors in the US and Europe.

[5] The survey data seems to understate the Middle East's likely holdings of US assets, perhaps because neither the high-frequency data BEA data (which is derived from the Treasury's TIC data) nor the annual survey picks up foreign central bank funds – and sovereign wealth funds – that are managed by private portfolio managers.

push up their stock price) or private equity firms, which borrow heavily to buy the listed stock of publicly traded companies.[6] Conversely, those sectors of the US economy that compete with imports, particularly imports from emerging economies, and that export goods and services have been hurt by the policies that gave rise to these large official inflows.

In aggregate, I believe the negative long-term impacts of the policies that have given rise to large official inflows to the US outweigh the positive. While many in the US clearly have gained from low interest rates, it is hard to argue that the US has been borrowing from abroad to invest in ways that will generate the future export revenue needed to repay the United States' growing external debt. Suburban housing is not an obvious source of export revenue – and firms that borrow to buy back their equity rather than to finance new investment are not obviously increasing the United States' future export capacity either. Many abroad have also gained from their government's efforts to prop up the dollar – not the least China's export sector. But these policies will also generate losers, notably taxpayers in emerging economies who will at some point incur large losses on their government's dollar holdings.

Nonetheless, it is important to recognize that central banks have generally acted to stabilize rather than to destabilize the foreign exchange and bond markets. Since early 2004, the IMF's data on central bank reserves indicate that central banks effectively have bought dollars – and dollar-denominated bonds – when private market participants have been unwilling to do so, helping to stabilize US and global financial markets. As a result, a fall off in (net) private demand for US assets has not let to a large drop in overall foreign demand for US assets, allowing the US to finance its large deficit at a relatively low costs. Volatility in private demand for US assets has translated into volatility in central bank dollar reserve growth, not volatility in financial markets or in aggregate financial flows to the US.

This has been particularly apparent over the last three quarters. As the US economy slowed and growth abroad picked-up, net private capital inflows to the US fell. US demand for foreign assets rose, and demand for US assets from private investors abroad fell. The BEA's data, for example, show for q1 that central banks provided about $150b in direct financing to the US in the first quarter – a net inflow equal to about 75% of the US current account deficit.

The $150b in official inflows in q1 is if anything an under-estimation of likely central bank financing of the US in the first quarter. The high-frequency data released by the US (The monthly Treasury International capital data and the quarterly BEA balance of payments data) tend to overstate private purchases and understate official purchases. Lower frequency data – notably the United States annual survey of foreign portfolio investment – tends to do a better job of picking-up central bank purchases of US assets.

[6] Central banks are not large direct participants in this market but by lowering yields in Treasury and Agency bonds (and buying these bonds from pension funds and other investors) they encouraged other investors to reach for yield. Significant central bank deposits in the international banking system have also supported the leveraged loan market.

The last survey – which covered the period between June 2005 and June 2006 – showed $345 in official purchases of long-term US debt, $125b more than in the unrevised data. The last survey, for example, revised the United States estimate of Chinese purchases of US debt up by $90b. (See Chart 8; Chinese holdings of US Treasuries jump every June, when the survey data is released). There is no reason to think that this pattern will change.[7]

I consequently prefer high-frequency estimates of the increase in central bank dollar holdings that are derived from reported increase in foreign central bank reserves, along with an estimate of the share of those reserves that are held in dollars. This methodology has its limits. It will, for example, over-estimate central bank purchases of dollars if central banks are reducing the dollar's share of their reserves. Nonetheless, this methodology accurately predicted the large upward revisions in central bank holdings in the last survey (see Charts 9 and 10).

With total global reserve growth topping $250b in q1, this methodology implies that central bank demand for dollar assets now tops $200b a quarter. Preliminary data for q2 suggests global reserve growth will top $300b by a substantial margin, which implies a truly extraordinary $250b in central bank demand for dollar assets in q2. The very strong recent growth in the New York Fed's custodial holdings – which have been running at an annualized pace of close to $500b this year – provide strong indirect evidence of a strong rise in US dependence on inflows from foreign central banks (Chart 11).

RISKS: TOO LITTLE OFFICIAL FINANCING, TOO MUCH OFFICIAL FINANCING AND MORE DEMANDING TERMS FROM THE OFFICIAL SECTOR

Ongoing US dependence on central bank demand for US assets carries with it three risks:

- Central banks stop adding to the dollar holdings.
- Central banks resist all market pressure for adjustment, allowing the underlying disequilibrium – and total foreign claims on the US, to build.
- Foreign governments change the terms of their financing of the US.

Professor Rogoff, a fellow member of this panel, has argued that the large credit line extended by emerging economy central banks to the US constitutes a kind of reverse foreign aid. Both relatively poor emerging economies and wealthy oil exporting economies that are intervening heavily to keep their exchange rates from appreciating are effectively "over-paying" for US dollar-denominated assets. Should they stop intervening, their exchange rates will rise – reducing the value of their existing dollar holdings in local currency terms.

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[7] In the first quarter of 2007, the increase in the New York Federal Reserve Bank's custodial holdings of US treasury and US Agency bonds exceeded the estimated increase in central bank holdings of US treasury and US Agency bonds in the BEA's balance of payments data by about $20b. Central banks who buy US securities in London sometimes hand those securities over to the New York fed; the transfer of custodianship though is not considered a sale.

The resulting losses potentially are quite significant. Chinese intervention in the foreign exchange market is currently close to 15% of its GDP. If the RMB is undervalued by 33% against a basket of euros and dollars that corresponds with China's foreign currency reserves, the annual cost of this policy is roughly 5% of China's GDP.[8] It is possible – though unlikely -- that China might conclude that its interests would be better served running a 5% of GDP fiscal deficit to finance a social security system and better health care rather than incurring an expected loss of 5% of its GDP lending to the US and Europe. Of course, the effective subsidy that China extends to American borrowers also benefits China's export sector – there are strong interests inside China that seek to maintain the current policy. However, those who depend on the kindness of strangers shouldn't take their continued kindness for granted.

Emerging economies do not need to sell their existing reserves to shake the system –all they need to do is stop adding to their dollar reserves/ dollar assets of their investment funds. Indeed, if emerging markets just held their purchases of US assets constant at a time when private demand for US assets fell, they could have a substantial impact on US financial markets. The markets now expect that emerging economy central banks will be the dollar's buyer of last resort.

China is the largest single source of financing for the US external deficit. China probably accounted for about 1/3 of all long-term debt purchased by foreigners in 2006, and more like ½ of all foreign purchases of Treasuries and Agencies. The strong increase in the pace of Chinese reserve growth implies that China will likely account for a higher share of total purchases in 2007. Changes in how China allocates its immense and rapidly growing portfolio consequently could have a large impact on US markets. A reduction in Chinese purchases of all US debt would have the largest impact, but even shifts in the kinds of assets that China buys now could have a substantial impact. For all the attention that China's $3b investment in Blackstone generated, it likely represents less than one week's worth of Chinese purchases of debt.

China is not the only actor with the potential to shock the US financial system. The Institute for International Finance recently reported that the oil-exporting economies of the Gulf have more accumulated foreign assets than China. They also hold nearly as large a share of their assets in dollars, even though only 10% of their imports come from the US. Should the Gulf states change the dollar's share of their portfolio suddenly, they too could potentially put substantial pressure on the dollar.

This risk isn't new. Back in 2003, Former Treasury Secretary Lawrence Summers warned that the United States dependence on credit from countries selling goods to the US was generating "a balance of financial terror": the US was dependent on China for large-scale financing, while China depended on the US to provide sufficient demand for

[8] This calculation ignores the "carry" the Chinese government gets from borrowing at low interest rates in China to buy US dollar debt. It is clear, though, that these interest gains – which themselves stem from China's artificially low interest rates – are not large enough to offset the capital losses from a substantial RMB appreciation. China's reserves are now roughly 45% of its GDP. China's central bank will eventually face a loss equal to 15% of China's GDP.

its products.  More recently, Summers noted that one lesson of the cold war is that a system based on a balance of terror can be stable for quite some time.

However, the system's current apparent stability is in some ways deceiving, as the costs emerging economies are being asked to bear to sustain the United States existing current account deficit are rising.    Emerging market reserve growth has doubled since early 2006, rising from around $600b to around $1.2 trillion, as private investors shifted funds from the US to the emerging world.   To be sure, large scale reserve growth generates benefits for exporters in emerging economies.  But rapid reserve growth also limits the domestic monetary policy autonomy of many emerging economies, as well as generating financial losses – now generally hidden – that taxpayers in emerging economies will eventually have to absorb.   The constellation of interests that supports the status quo may not last forever.  At some point, the perceived costs of buying dollars when the dollar is under pressure may exceed the perceived benefits that emerging market economies gain from resisting market pressures for appreciation.

One risk is that emerging economies suddenly stop adding to their dollar holdings, forcing the US to adjust to fall off in foreign financing too rapidly.  Another risk, ironically, is that emerging economies will continue to add to their reserves at a pace that allows the US to continue to defer a necessary adjustment.

Substantial swings in the private sector's willingness to finance US external deficits – and a large gap between the size of the US deficit and net private inflows in 2003, 2004, 2006 and so far in 2007 -- have not translated into large swings in the US external accounts or sharp swings in US economic activity.   However, strong central bank demand for US debt – a byproduct of their decision to resist market pressure for their currencies to appreciate – risks thwarting all adjustment, not just thwarting disruptive adjustment.

If the US trade deficit remains constant as a share of GDP, the deterioration in the US income balance associated with a rising stock of external claims on the US implies a growing current account deficit over time.   The Congressional Budget Office's recent analysis of the US external deficit accurately noted that a sharp adjustment process would bring the US deficit down quickly, limiting the overall increase in US net external indebtedness.   By contrast, a period without any adjustment – or a further rise in the US external deficit – that is followed by a period of gradual adjustment implies that the overall US external debt stock would rise even further than would be the case if the US deficit started to fall now.

This risk is not entirely theoretical.  The recent slowdown in US growth – combined with an acceleration in global growth – created close to ideal conditions for the US external deficit to fall.   Strong global growth supported US exports.  The slowdown in US growth slowed the increase in US imports.  Indeed, the US deficit with those regions of the world – Europe and North America – that have allowed their currencies to appreciate has fallen substantially.  However, the US deficit with East Asia continues to rise (Chart 12).  At a result, the fall in the United States overall deficit has been modest.  Most of the improvement in the current account deficit from its recent peak in the third quarter of 2006 stems from lower oil prices.

A final risk that is worth noting: the rest of the world may change the terms associated with its financing.

Countries like China have resisted taking policy steps – like faster RMB appreciation or a major initiative to stimulate domestic consumption – that would lower their current account surplus and reduce the scale of their purchase of US assets. However, such countries are clearly seeking to invest in US assets that offer the prospect for greater returns than US Treasuries.

Such an evolution is natural. China holds far more liquid Treasury and Agency securities than it needs to address even a most draconian shock. Moreover, China's heavy concentration in US fixed income securities (Chart 13)[9] is itself a risk. A rise in Chinese holdings of US equities is a natural by-product of China's large surplus, the United States large deficit and a balanced Chinese portfolio of US assets. China's willingness to hold such a high share of its national wealth in low-yielding debt is far more unusual than its interest in exploring alternatives that offer higher potential returns.

The current pace of accumulation of Chinese foreign assets suggests that China's total foreign assets will rise from about $1.5 trillion at the end of 2006 (with about 1.2 trillion of that reserves and reserves-like assets) to more than $3 trillion by 2010. A world where China creates a $1.5 trillion dollar investment fund, rather than adds $1.5 trillion to its reserves, over the next few years isn't impossible to envision. Even if China adds roughly equal sums to its reserves and investment fund over the next few years (Chart 14), its investment fund could reach be the largest in the world by 2010. Creating an investment fund won't eliminate the constraints on China's overall portfolio that stem from China's continued adherence to its dollar peg. However, shifts in the kind of assets that China is purchasing could still influence US markets. A Chinese move away from long-term fixed-income debt could increase US interest rates by as much as 50 basis points.

Other central banks now adding to the reserves rapidly (Russia) and other central banks with large existing stocks of reserves (Korea and Japan) have either announced that they are creating a new investment fund (Russia, Korea) or are rumored to be considering an investment fund (Japan). All seem to be struck by the high returns Singapore has

[9] The best data on China's holdings of US assets comes from the annual US survey of foreign portfolio investment. As of June, 2006, China held slightly a bit under $700b in US debt: $375b of US Treasury bills and notes, $260b of "agency" bonds, and $60b of corporate debt. In addition, China held slightly over $20b of US equities – and a bit over $15b in plain old bank deposits. . Treasuries and Agencies accounted for 90% of all Chinese holdings of US securities, debt securities accounted for 99.5% of China's US portfolio (Chart 5) and US securities accounted for around 70% of China's total reserves (included reserves shifted to the state banks. The US data does not distinguish between US assets held by China's private sector (including its state commercial banks) and US assets held by China's State Administration of Foreign Exchange. However, given the size of China's reserves, it is reasonably to assume that the State Administration of Foreign Exchange accounts for most of China's recorded holdings of US securities.

obtained from its investment funds. So long as oil prices remain high, the assets of existing investment funds in Norway will continue to grow as well. All these funds already hold substantial quantities of US equities, both directly and through their investment in private equity and hedge funds.

Trying to shut the investment funds of foreign governments out of US markets is neither feasible nor desirable. So long as the United States is running large external deficits, US government is unlikely to be in a position where it will be able to dictate what kind of U.S. assets its creditors are allowed to buy. Moreover, any move to shut government investment funds out of the US market would invite foreign governments to try to limit US investment in their markets.

Nonetheless, the growing presence of government investment funds in US equity markets raises a host of questions – questions about US capital market regulation as well as questions about the transparency of large investment funds. Edwin Truman of the Peterson Institute has argued that the increased role of central banks and sovereign wealth funds in global capital markets implies that both should adhere to a higher level of transparency. He specifically has called for more disclosure of their investment strategies as well as the currency composition of their portfolios. I second Dr. Truman's suggestion, along with a recent suggestion from the Treasury's Acting Under Secretary, Clay Lowery, that the IMF encourage investment funds to develop a code of best practices.

CONCLUSION

So long as the US is running a large external deficit, foreign holdings of US assets will need to rise faster than US holdings of foreign assets. In many ways, the past few years have been atypical. The United States' external deficit has been financed entirely by the net sale of debt securities rather than by the net sale of equities, in no small part because of unprecedented growth in central bank reserve assets. The low interest rate on US external debt – relative to both the returns the US has achieved on its equity investment and the interest rate on US external lending – has allowed the US to continue to earn more on its foreign investment than it pays on its foreign debts.

These patterns are unlikely to persist. So long as emerging economies are unwilling to allow their currencies to appreciate and run large current account surpluses – especially with private capital flowing in net into emerging economies – many governments around the world will be accumulating external asset rapidly. Over time, though, more of those assets will be handed over investment funds and fewer will be held as central bank reserves. The US will likely both have to sell more equity to the rest of the world and pay a somewhat higher interest rate on its external debt than it has recently.

Foreign investors – and right now that means foreign governments – now finance, directly and indirectly, a larger share of domestic US investment than makes sense over time. While rapid central bank reserve growth and large official financing of the US deficit can help the US postpone the necessary adjustment, the longer the adjustment is deferred, the greater the long-term risks.

The process of adjustment is more likely to be smooth if it is supported both by policy changes here in the US and abroad. The US government should adopt policies that would allow the US to finance more investment out of domestic US savings, just as many emerging economies should put more of their savings to work at home. Further reduction in the fiscal deficit and a new push to reduce our energy import bill -- the United States "petroleum" deficit is now close to $300b – are the most obvious policies for the United States. Governments in emerging markets need to do more than complain about US profligacy, particularly when their purchases of US debt have masked the consequences of the United States' low level of savings and large resulting external deficit. East Asian economies with high savings rates – notably China – have substantial scope to take policy steps to support domestic consumption. Most governments that now manage their exchange rate against the dollar – whether in the Gulf, Latin America or East Asia -- would benefit from additional exchange rate flexibility.

Both the United States large deficit and equally large surpluses in many emerging economies built up gradually over time. Bringing the US deficit and emerging economy surpluses down without tremendous costs will also take time. If the US and the world are to adjust gradually, they need to get started.

Charts and graphs

Chart 1

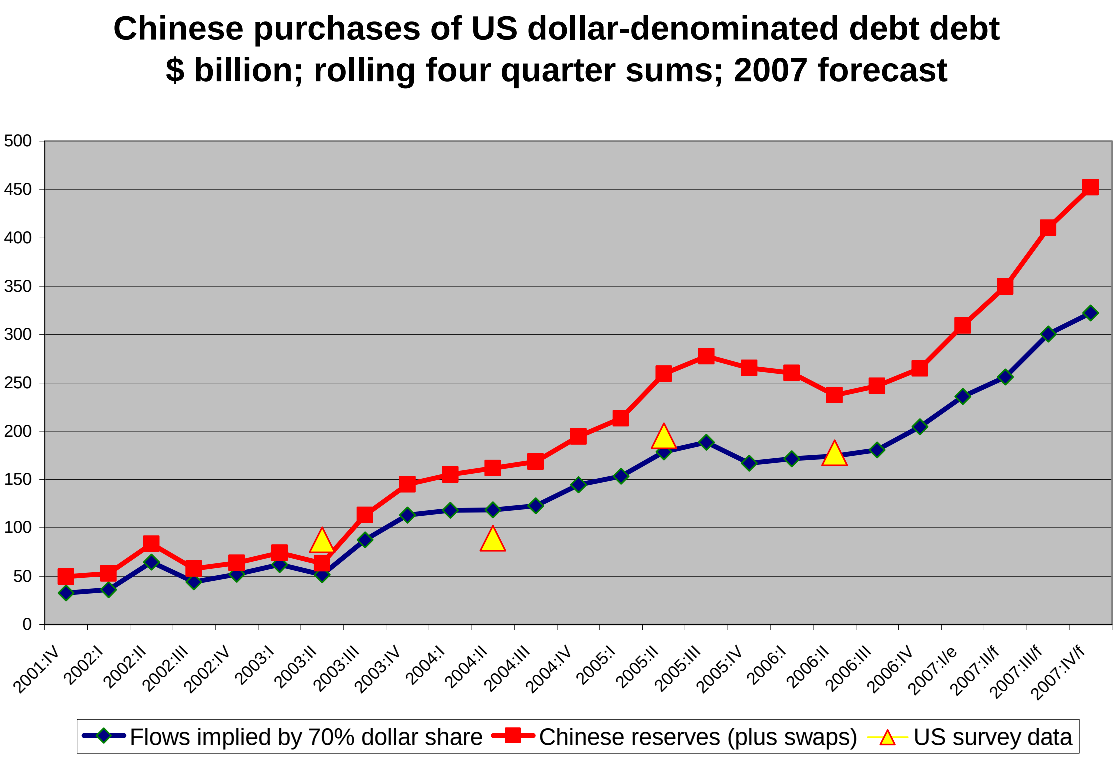


Chart 2:

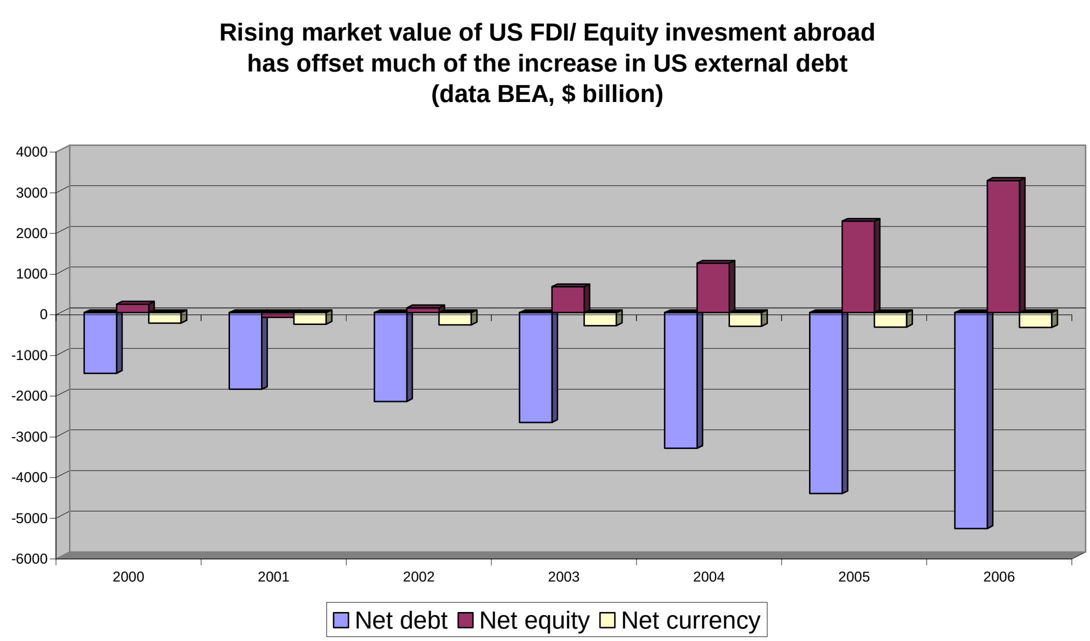

Chart 3

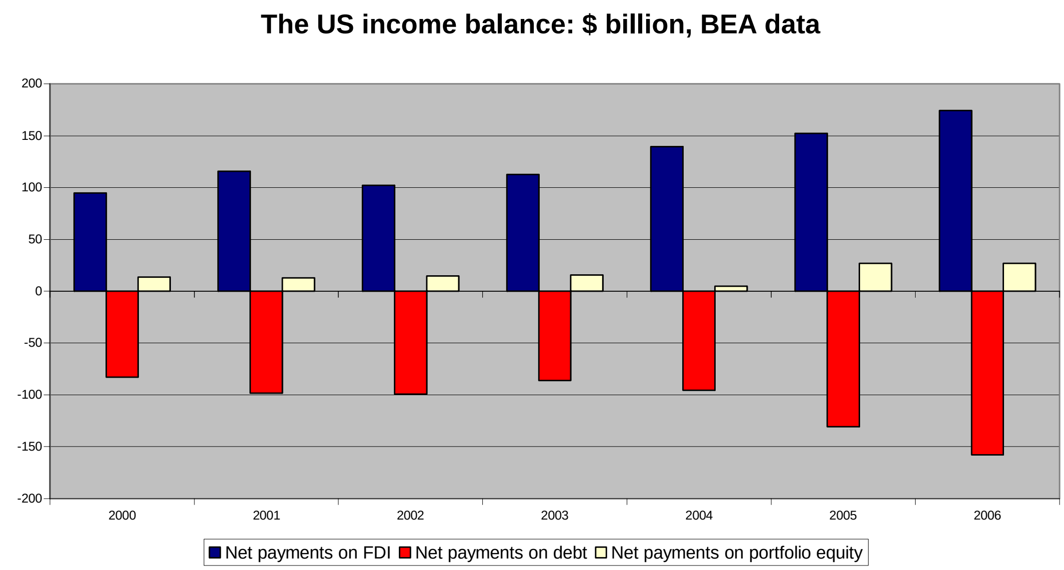


Chart 4

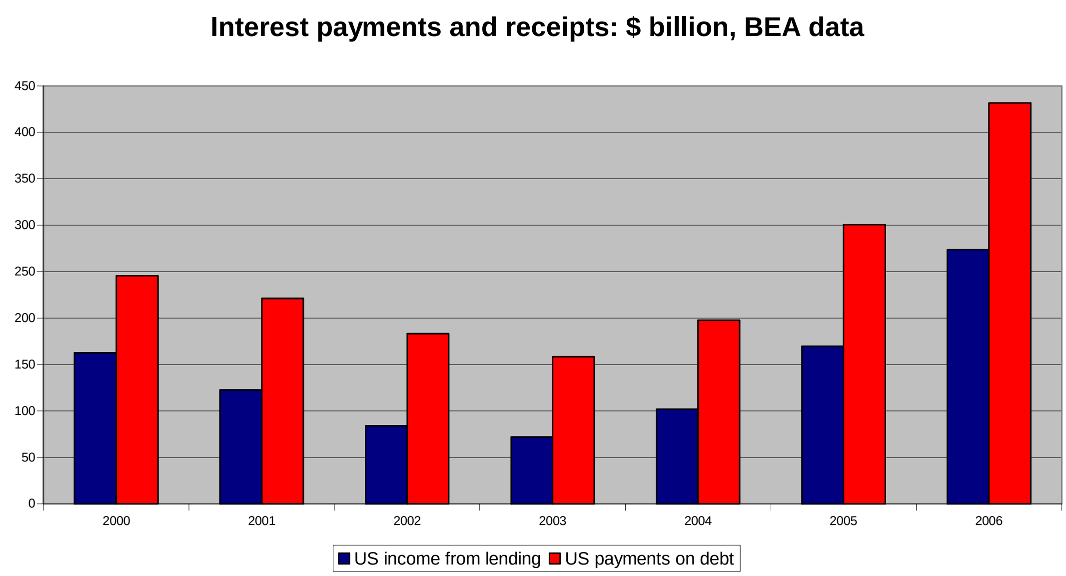


Chart 5

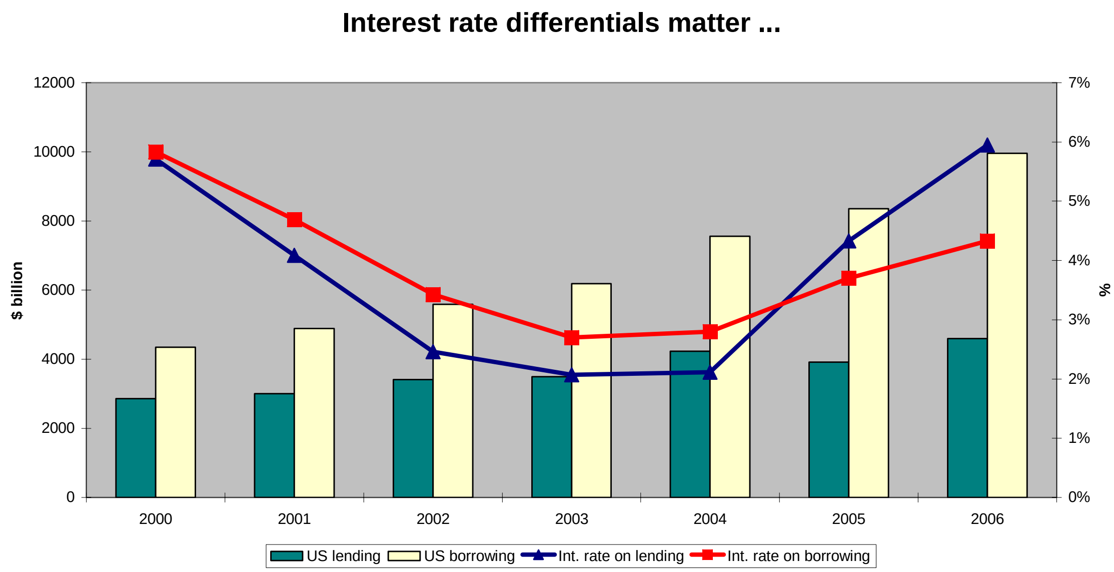
Interest rate differentials matter ...
12000
10000
8000
6000
4000
2000
0
$ billion
7%
6%
5%
4%
3%
2%
1%
0%
%
2000
2001
2002
2003
2004
2005
2006
US lending
US borrowing
Int. rate on lending
Int. rate on borrowing

Chart 6

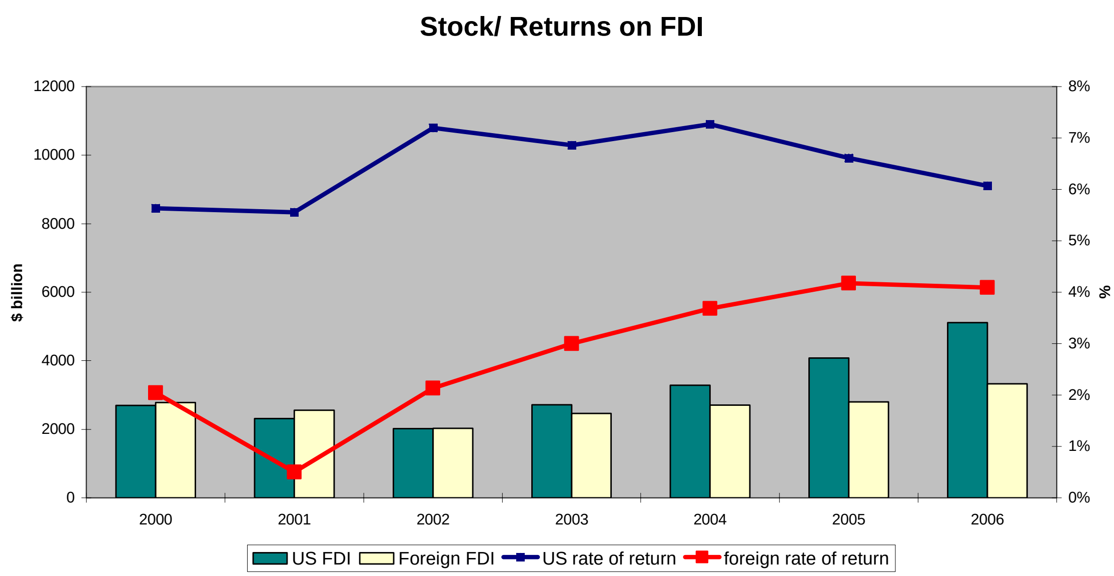
Stock/ Returns on FDI
12000
10000
8000
6000
4000
2000
0
$ billion
8%
7%
6%
5%
4%
3%
2%
1%
0%
%
2000
2001
2002
2003
2004
2005
2006
US FDI
Foreign FDI
US rate of return
foreign rate of return

Chart 7

**Cumulative increase in the stock of marketable Treasuries not held by the Fed since 2000**

**(Flow of funds data, this data has not been revised to reflect the latest survey, so it overstates private holdings abroad and understates central bank holdings)**

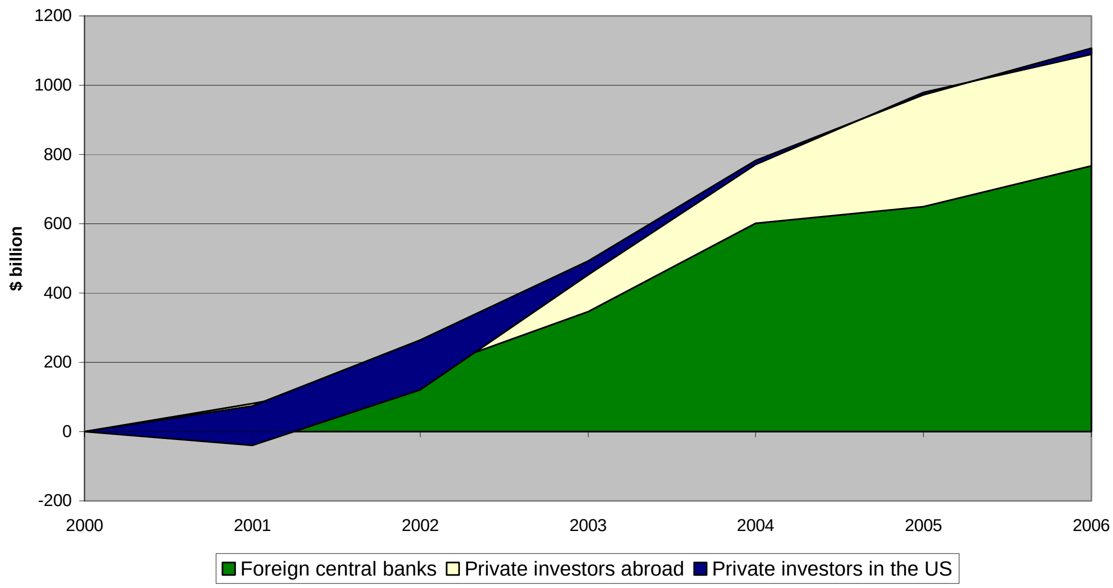


Chart 8

**Chinese and Japanese holdings of Treasuries**

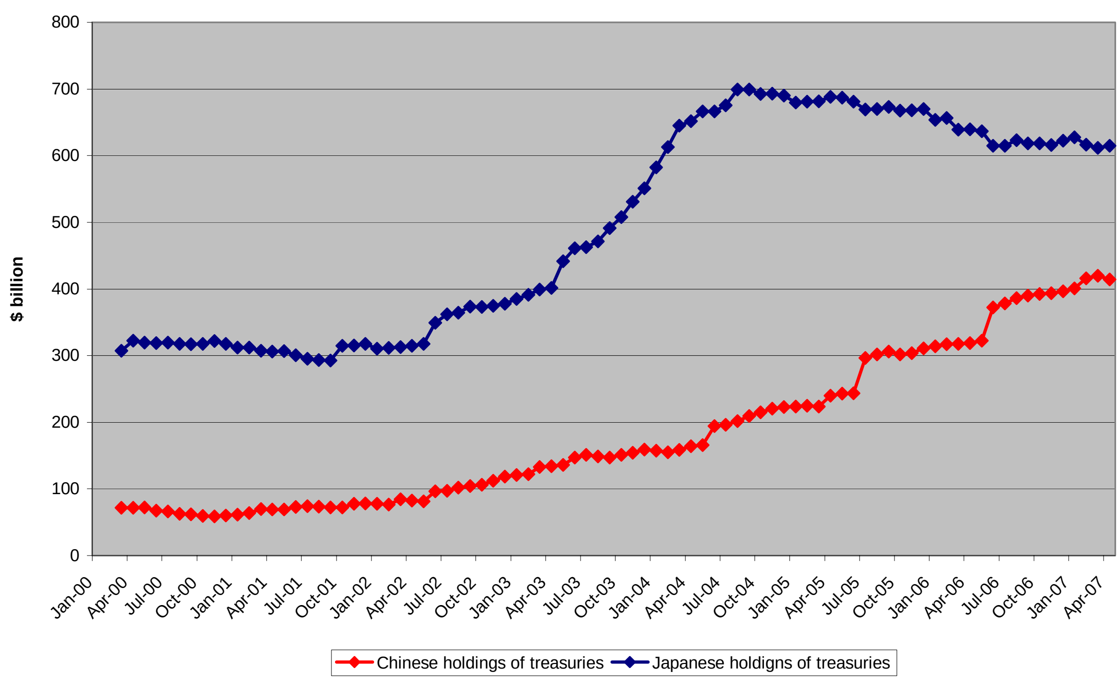

Chart 9

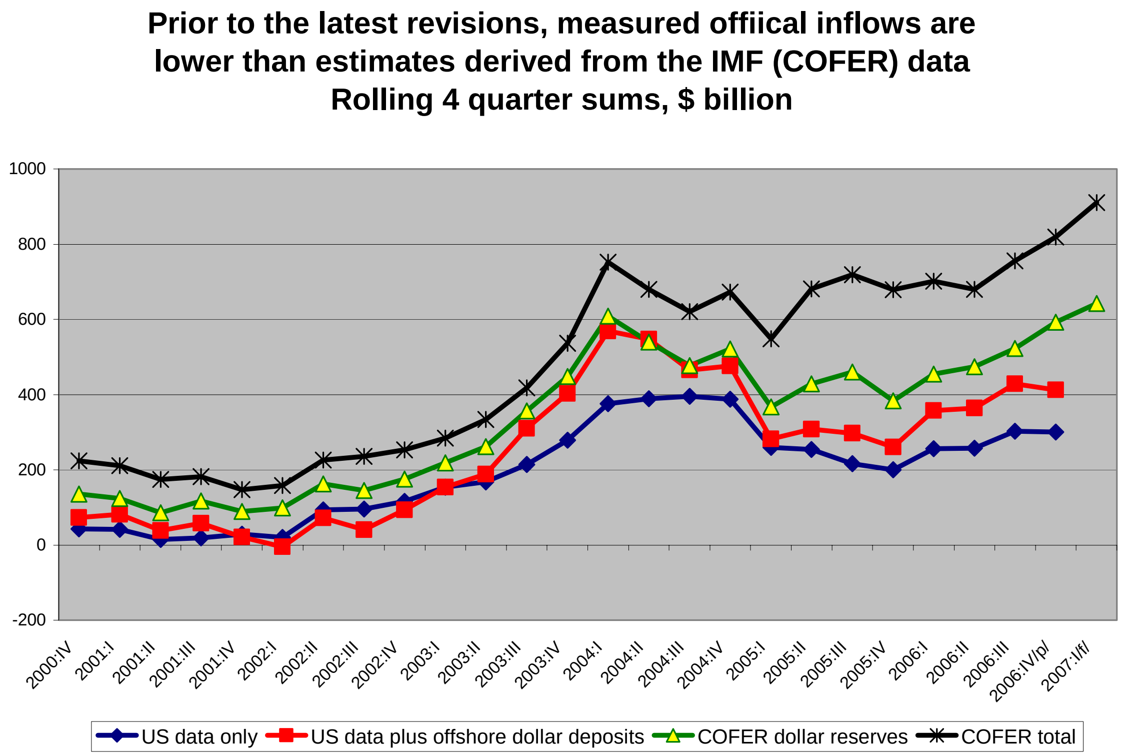


Chart 10

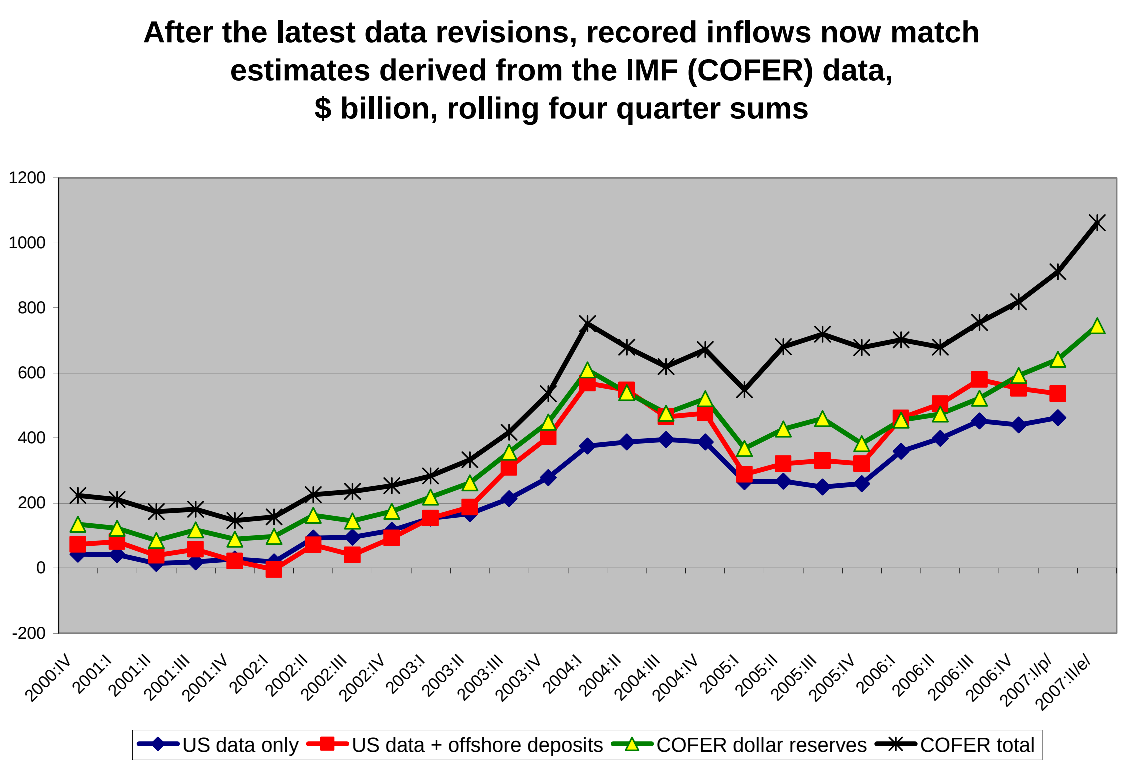

Chart 11

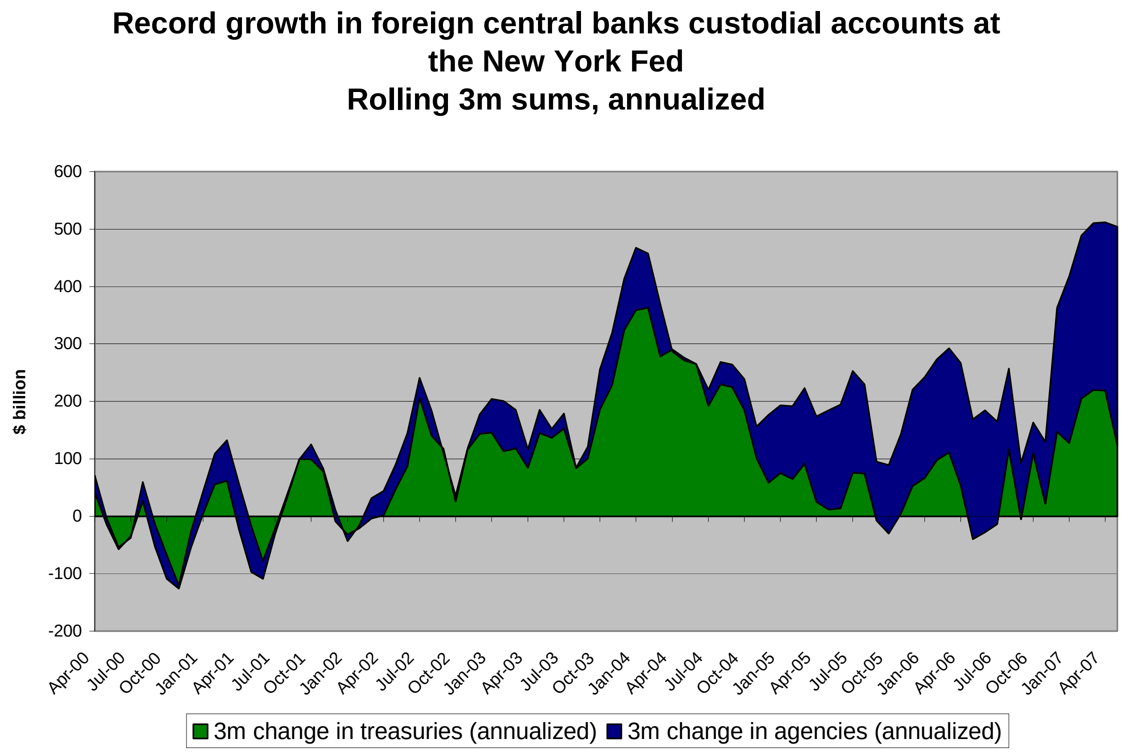


Chart 12

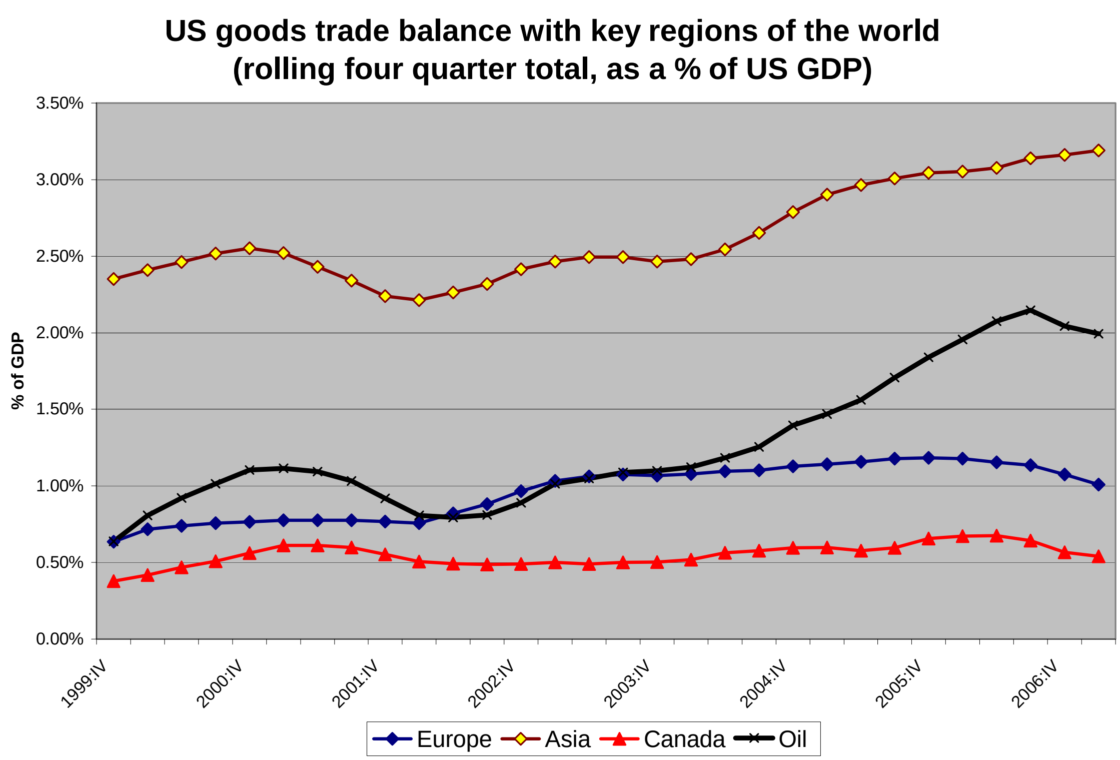

Chart 13

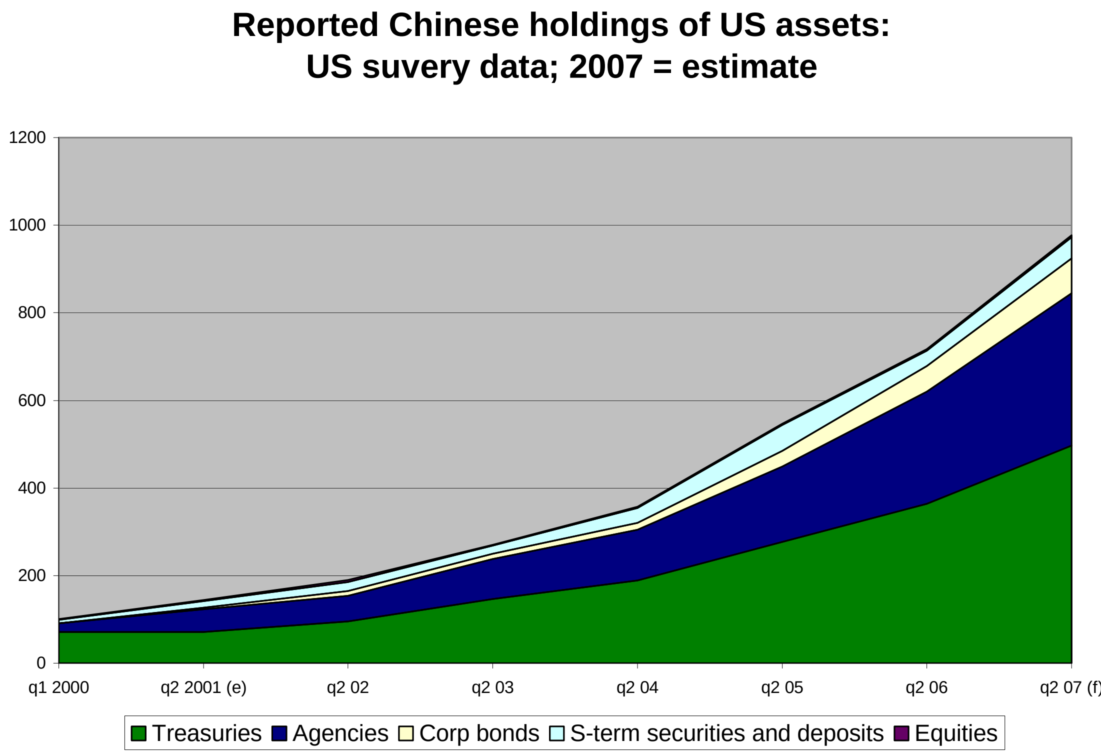


Chart 14

**Distribution of Chinese foreign assets over time?**
**2007-2010 assumes stable $500b**
**increase in foreign assets**